REMARKS

In response to the Official Action mailed January 28, 2003, Applicant proposes to amend his application and requests reconsideration in view of the proposed amendment and following remarks.

The proposed amendment of claims 2 and 6 limits the upper end of the range of the filler content of the epoxy resin composition. This change in the extent of the range is entirely consistent with the disclosure of the patent application at page 8, lines 25-29 where it is pointed out that if the filler of the size specified in the amended claims is present "in an amount of 15 wt% or more" that the fluidity characteristics of the resin are adversely affected with the result of poor molding of a semiconductor device. Accordingly, the amendment of claims 2 and 6 merely conforms those claims to the disclosure of the patent application and does not introduce any new concept or issue different from the original disclosure. In fact, based upon the cited passage, it might be asserted that the original range specified was not co-extensive with the disclosure. Thus, the proposed amendment is proper because it avoids a potential ground for rejection.

The four pending claims, claims 2, 3, 4, and 6 are rejected as anticipated by Asada (JP 10-204155). Applicant continues to traverse this rejection.

With regard to claims 2 and 6, Applicant again asserts that there can be no anticipation with respect to Asada when the ranges of the filler particle size and the concentration of the filler are understood. Different terms are used in Asada and claims 2 and 6 making it difficult to compare the reference to the claims. For the convenience of the Examiner, the following six paragraphs are reproduced from the previous amendment and explain Applicant's position.

> Claim 2 describes an epoxy resin composition including an epoxy resin and a filler. Ten to 15 weight percent of that filler has an average particle size of not more than 10 microns. This composition is different from the composition described by Asada, namely a resin composition containing at least 15 weight percent of a filler with a particle size no more than 5 microns. These references may be difficult to compare but when the proper comparison is made, it is apparent that these ranges with regard to the filler, considering size and concentration, do not overlap. Without the overlap, the rejection for anticipation cannot stand.
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> Perhaps it is somewhat easier to understand why the ranges specified in Asada and claim 2 do not overlap by stating the ranges in a different way. In the invention as defined by claim 2, when stating that 10 to 15 %

of the filler particles have an average size of no more than 10 microns, it is being stated that 85 to 90% of the filler particles have an average size larger than 10 microns. Reversing the description of Asada, in that composition, 15 to 85% of filler particles have an average size greater than 5 microns. It is apparent from these revised descriptions, that there can never an overlap in the specified ranges and that the invention employs, on an average, a much larger particle size filler than does Asada.

Of course, if an unrealistic assumption is made concerning the distribution of particle sizes, one could assert that the ranges are identical at one point, namely an 85% concentration. However, this coincidental point could only occur if the Asada composition contained no particles having a size 5 to 10 microns so that the 85% of the particles having a size larger than 5 microns also had a size larger than 10 microns. This presumption is unrealistic because, as known to those of skill in the art, silica filler particles are not available with a specific size or in a distribution of sizes having a sharply defined size range. Rather, the fillers include particles having a continuous size distribution. Particles below or above certain sizes may be removed from a silica filler by floatation, filtering, or other techniques, but even these size selection processes are not totally effective in eliminating all such particles. No technique is available for eliminating particles in a tightly defined size range within the usual wide range of particle sizes.

In the invention, as compared to Asada, a larger proportion of smaller size particles are removed from the filler added to the epoxy resin. While an argument might be made of a theoretical possibility of a single point in the distribution of the invention and in Asada where the ranges just connected but do not overlap, the range of concentration, that argument would be unreasonable because of the scientific facts concerning the distribution of particle sizes in available silica fillers. In other words, because there can be no real world situation in which the ranges of the invention and Asada overlap, or even contact, there can be no anticipation of claim 2 by Asada so that the rejection must be withdrawn.

Further, there should be no rejection of claim 2 as obvious in view of Asada considered by itself. The criticality of the range specified in claim 2 is established in the discussion in the patent application under the heading "Third Embodiment" from page 8, line 5 through page 10, line 6.

Particular attention should be given to the Table appearing on page 9 of the patent application. The Table and the accompanying text demonstrate that while increasing the content of the filler component with an average particle size of no more than 10 microns improves the visibility of laser marks made on the resin composition containing the filler, that the molding characteristics of the composition deteriorate when that filler component exceeds 15 weight percent. Thus, there is a tradeoff between using a smaller size filler to achieve improved visibility of the mark and the consequent increased viscosity as the relative number of larger particles increase. Thus, the patent application demonstrates that the invention as defined by claim 2 cannot be obvious in view of Asada.

Claim 6 is directed to a semiconductor device that includes a semiconductor chip a package of epoxy resin, with the epoxy resin containing a filler having the same characteristics as described with respect to claim 2. Thus, for the same reasons that Asada cannot anticipate nor make obvious claim 2, Asada cannot anticipate nor make obvious claim 6 nor its dependent claims 3 and 4. The arguments made with respect to claim 2 are not repeated with regard to claim 6, but are asserted and incorporated by reference.

The present amendment of claims 2 and 6 makes clear that even if there is no change in the interpretation of Asada concerning the concentration of filler, there is no longer any possibility of overlap or contact of the ranges of the claims and Asada. Thus, the rejection for anticipation cannot be maintained in view of the amended claims. Upon withdrawal of the rejection for anticipation of claims 2 and 6, it follows that the rejection for anticipation of claims 3 and 4 cannot be maintained.

As explained in the patent application, particularly with respect to Table 3, the filler content within the specified range of the claims and of the specified size of the claims provides important advantages in two respects. First, the specified combination of ranges provides improved visibility of a marking formed on the resin with a laser while not adversely affecting the ability to form the resin package by molding. The experimental results reported in Table 3 show that when the filler content reaches 15% that the viscosity of the epoxy composition increases, from 70 poise for Samples C and D, containing less than 15% filler, to 80 poise for Sample E including 15 wt% of the filler. The reported viscosity for the Sample F containing 20 wt% of the filler shows that the increasing filler content continues to increase the viscosity of the resin, impairing the ability to form a satisfactory resin package by molding. These measured data clearly demonstrate that the

defined by the claims now pending is not only different from but cannot be obvious in view of Asada because Asada does not suggest a modification of itself in the direction of the invention as now claimed.

Reconsideration and withdrawal of the rejections upon entry of the foregoing amendment are earnestly solicited.

Respectfully submitted,

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